

DOCKET NO: 249210US0

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :  
TATSUYA YASUNAGA, ET AL. : EXAMINER: FISCHER, J. R.  
SERIAL NO: 10/790,019 :  
FILED: MARCH 2, 2004 : GROUP ART UNIT: 1733  
FOR: RUBBER BONDED BRASS :  
COMPOSITE MATERIAL :

REPLY BRIEF

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

The following Reply Brief is in reply to the Examiner's Answer dated July 20, 2007 (Answer).

Most of the findings made by the Examiner in the Answer have been rebutted in the Appeal Brief, including findings made under "Response to Argument" (Answer at 5-8). The following is in reply to findings raised by the Examiner for the first time in the Answer.

The Examiner concedes that preheating temperature and preheating time both affect the characteristics at the brass/rubber interface (Answer at 6), but continues to find that "applicant's claimed range between approximately 2 and 20 minutes (1-50 projections) appears to be consistent with the method of Takayama. Thus, one of ordinary skill in the art at the time of the invention would have found it obvious to pre-heat the tire of Takayama in accordance to the claimed invention" (Answer at 7).


In reply, Applicants have already responded to the Examiner's findings regarding a preheating time of 2 to <20 minutes in the Appeal Brief. Moreover, in the Examples in the

specification, Applicants demonstrated an improvement when the preheating time is between 2 and <20 minutes for a preheating temperature of 100°C. Thus, while the above range of 2- <20 minutes is the subject matter of Claim 10, it is clear that depending on the preheating temperature, which is between 80 and 120°C for independent Claim 1, the actual preheating times to arrive at 1 to 50 needle-like Cu-S-based reaction products will be different. This effect is clearly not recognized by the applied prior art. The Examiner appears to recognize this in the Answer, by finding that one skilled in the art would have expected needle-like reaction products to form more quickly at, say, 120°C (Answer at 7-8). But how could this have been expected without the present specification as a guide, since the applied art evidences no recognition of the phenomenon of needle-like reaction products? Moreover, how would one of ordinary skill in the art know when to stop preheating in order not to exceed the 50 needle-like reaction product limitation? The Examiner has no answer and indeed, the Examiner has not responded to any of Applicants' arguments regarding the effect of exceeding the maximum number of permissible needle-like reaction products recited in the present claims.

Applicants continue to maintain that the Final Rejection should be REVERSED.

Respectfully submitted,

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